HUNG PHAM

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EDUCATION

George Mason University Fairfax, VA
Doctor Of Philosophy in Computer Science *August 2026 – Present*
Advised by Professors Xiaokuan Zhang and Keren Zhou.

George Mason University Fairfax, VA
Bachelor of Science in Computer Science *August 2021 – May 2025*
Relevant Courses: Foundations/Advances of Cybersecurity, Natural Language Processing, Data Mining, Computer Vision
Awards: Mason Distinction Scholarship ($68,000), Tech Talent Award ($8,000)

PUBLICATIONS

V. T. Kandalam, V. Duong, X. Li, M. Yin, V. S. Simhadri, **Hung Pham**, H. Shao, X. Zhang, and Y. Xiao, *OmniVul: A Holistic, Multi-Turn Conversational Benchmark for LLM-Based Vulnerability Assessment*, *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2026.

A. Khanal, A. Paudel, **Hung Pham**, and G. J. Stein, *Multi-Robot Learning-Informed Task Planning Under Uncertainty*, *IEEE International Conference on Robotics and Automation (ICRA)*, 2026.

TECHNICAL SKILLS

Languages: Python, Java, C, C#, SQL, JavaScript, HTML/CSS
Frameworks: PyTorch, TensorFlow, keras, pandas, NumPy, OpenCV, Matplotlib, scikit-learn, Spring Boot
Developer Tools: Git, Docker, make, Unity, Robot Operating System (ROS), MySQL
Operating System: Ubuntu, Kali Linux, Windows
Spoken Languages: Vietnamese, English

EXPERIENCE

Security Research Assistant December 2024 – Present
Security of Emerging Computer Systems And Technologies Lab (SECSAT) *Fairfax, VA*
- Develop tools for understanding and analyzing GPU programs, with a focus on software reliability.
- Investigated a novel attack using Python that targeted the KV-cache in LLMs to extract system prompt.
- Evaluated the effect of LLM pruning methods on membership-inference attack success.
- Co-authored OmniVul (KDD 2026), built and labeled Q&A pairs, and supported the evaluation pipeline.

Robotics Undergraduate Research Assistant August 2024 – May 2025
Robotic Anticipatory Intelligence And Learning Group (RAIL) *Fairfax, VA*
- Engineered ML-based robotic navigation using Python and ROS to enhance LoCoBot indoor path planning.
- Reduced model size by 74% and lowered computation in a PyTorch neural network while preserving planning cost.
- Deployed an optimized model on LoCoBot, cutting navigation cost by 21% versus Dijkstra greedy planner.
- Migrated the lab's LoCoBot codebase from ROS1 to ROS2, modernizing the stack for future experiments.

Backend Developer Intern June 2022 – Aug 2022
FPT Telecom *Hanoi, VN*
- Designed and developed a robust back-end application using Spring Boot with the help of a mentor.
- Optimized a MySQL database, improving retrieval efficiency.
- Gained hands-on experience with API development and implementation through integrating REST API.

Co-founder & Vice President August 2023 – May 2025
Mason Pool Club *Fairfax, VA*
- Established the GMU Pool Club, recruiting 50+ members in one semester.
- Led the club to secure 3rd place in a Virginia regional tournament.

PROJECTS

Pyquaticus | *Python, Pygame, NumPy, Docker, Git* Aug. 2024 – May 2025
- Transitioned 2D graphics to 3D in Pyquaticus, a maritime CTF simulation developed by the Navy Research Lab.
- Implemented 3D motion and rendering in Python and Pygame, enabling z-axis simulated movement.

Bag of Visual Words Classifier | *Python, OpenCV, NumPy, TensorFlow* Aug. 2023 – Dec. 2023
- Developed a custom Bag-of-Visual-Words model from scratch for image classification.
- Achieved 95% accuracy on Fashion-MNIST via optimized feature extraction and clustering.
- Integrated bilateral filtering with SIFT and K-nearest neighbor for robustness under image noise.